

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11143 (1984): Ground High Speed Steel Tool Bits [PGD 32: Cutting tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR GROUND HIGH SPEED
STEEL TOOL BITS

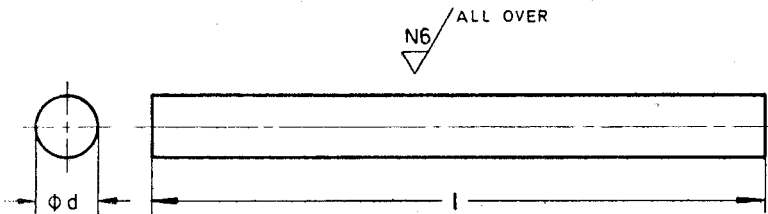
1. **Scope** — Covers dimensions and other requirements of ground high speed steel tool bits.

2. **Types** — Shall be of following types:

- Type A Round section
- Type B Square section
- Type C Rectangular section
- Type D Trapezoidal section

3. **Dimensions**

3.1 *Round Section Tool Bits — Type A*



All dimensions in millimetres.

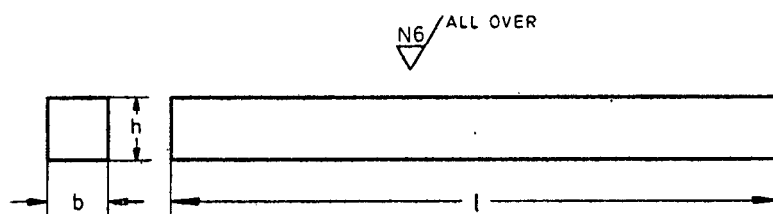
d h9	$l \pm 2$				
4	63	80	100	—	—
5	63	80	100	—	—
6	63	80	100	160	—
8	—	80	100	160	—
10	—	80	100	160	200
12	—	—	100	160	200
16	—	—	100	160	200
20	—	—	—	—	200

Designation:

A round section tool bit (Type A) having diameter $d = 10$ mm and length $l = 160$ mm and conforming to this standard, shall be designated as:

Tool Bit A 10 \times 160 IS : 11143

3.2 Square Section Tool Bits— Type B



All dimensions in millimetres.

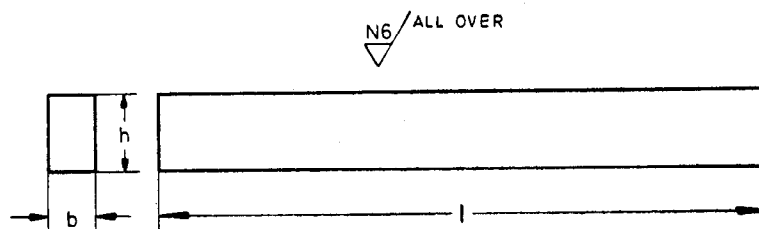
h h13	b h13	$l \pm 2$				
4	4	63	—	—	—	—
5	5	63	—	—	—	—
6	6	63	80	100	160	200
8	8	63	80	100	160	200
10	10	63	80	100	160	200
12	12	63	80	100	160	200
16	16	—	—	100	160	200
20	20	—	—	—	160	200
25	25	—	—	—	—	200

Designation:

A square section tool bit (Type B) having sides h and $b = 12$ mm and length $l = 100$ mm and conforming to this standard shall be designated as:

Tool Bit B 12 × 100 IS : 11143

3.3 Rectangular Section Tool Bits — Type C



All dimensions in millimetres.

Ratio h/b	h h13	b h13	$l \pm 2$				
1.6	6	4	100	—	—	—	—
	8	5	100	—	—	—	—
	10	6	—	—	—	160	200
	12	8	—	—	—	160	200
	16	10	—	—	—	160	200
	20	12	—	—	—	160	200
	25	16	—	—	—	—	200
2	8	4	100	—	—	—	—
	10	5	100	—	—	—	—
	12	6	—	—	—	160	200
	16	8	—	—	—	160	200
	20	10	—	—	—	160	200
	25	12	—	—	—	—	200
2.33	(14)	(6)	—	—	140	—	—
2.5	(10)	(4)	—	120	—	—	—

Note — Non-preferred sizes are given within brackets.

Designation:

A rectangular section tool bit (Type C) having sides $h = 20$ mm, $b = 10$ mm and length $l = 160$ mm and conforming to this standard shall be designated as:

Tool Bit C 20 × 10 × 160 IS : 11143



$\frac{h}{h_{13}}$	$\frac{b}{h_{13}}$	$l \pm 2$				
12	3	85	120	—	—	—
12	5	85	120	—	—	—
16	3	—	—	140	200	—
16	4	—	—	140	—	—
16	6	—	—	140	—	—
18	4	—	—	140	—	—
20	3	—	—	140	—	—
20	4	—	—	140	—	250
25	4	—	—	—	—	250
25	6	—	—	—	—	250

A trapezoidal section tool bit (Type D) having sides $h = 20$ mm, $b = 4$ mm and length $l = 140$ mm and conforming to this standard, shall be designated as:

4. Material — Unless otherwise specified, the high speed steel shall be of grades XT72 W18 Cr4V1 or XT90 W6 CoM05 Cr4V2 according to IS : 7291-1981 'Specification for high speed tool steels (first revision)', or any other equivalent as agreed to between the user and the manufacturer.

5. Hardness — The hardness of general high speed steel tool bits shall be 760 *HV* to 900 *HV*.

6. Marking — Each tool shall be etched with the designation and the manufacturer's name or trademark.

6.1 ISI Certification Marking — Details available with the Indian Standards Institution.

7. Packing — All tools shall be packed according to IS : 10097-1982 'Code of practice for packaging of metal cutting tools'.

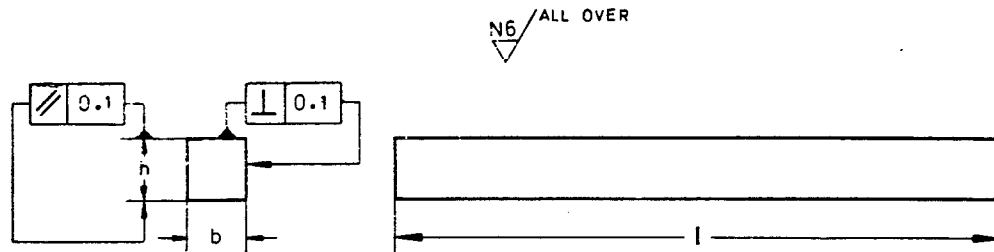
In the preparation of this standard considerable assistance has been derived from ISO 5421-1977 'Ground high speed steel tool bits, issued by the International Organization for Standardization (ISO).

AMENDMENT NO. 1 DECEMBER 1987

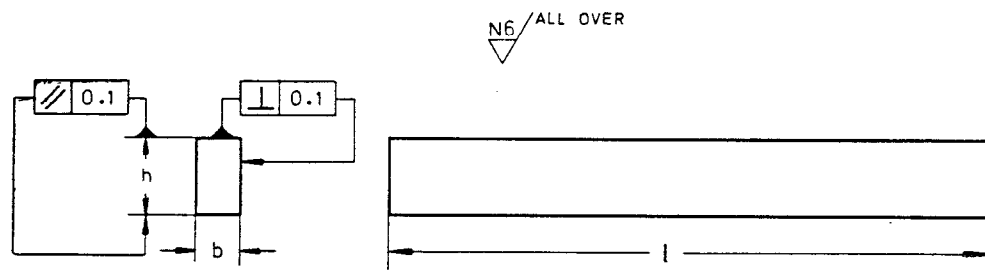
TO

IS : 11143 - 1984 SPECIFICATION FOR GROUND HIGH SPEED STEEL TOOL BITS

(Page 2, clause 3.2, Fig.) — Substitute the following for the existing figure:



(Page 3, clause 3.3, Fig.) — Substitute the following for the existing figure:



(Page 4, clause 3.4, Fig.) — Substitute the following for the existing figure:

